

Remarks

Initially, Applicants would like to thank the Examiner for the indication of allowable subject matter. In the Office Action of 23 February 2007, claims 1-3, 5-13, 24-27, 29-31, 33, 34, 65-68, 70-72, 74, 75, 77-80, 82, 83 and 85-111 were pending. Claims 1-3, 5, 24, 30, 71 and 77 were indicated allowable. Claims 6-13, 25-27, 29-31, 33, 34, 65-68, 70-72, 74, 75, 78-80, 82, 83 and 85-111 were rejected.

Claim Rejections – 35 U.S.C. §112, second paragraph

Claims 10-13, 27, 29, 31-34, 68, 70, 72, 74, 75, 80, 82, 83 and 85-111 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite. Applicants respectfully request favorable reconsideration for the reasons below.

1) Regarding claims 10-13, the Office contends that these claims are product by process claims and that the compounds embraced by claims 10-13 would be the same compound irrespective of how these compounds are made. In response to the Office's concerns, Applicants have amended claim 10 to recite that the compound may be made according to the process of claim 6, 7, 8, or 9. Applicants have cancelled claims 11-13. Applicants respectfully believe these amendments address the Office's concerns and request favorable reconsideration.

2) Regarding claims 27, 29, 31-34, 68, 70, 72, 74, 75, 80, 83 and 85-111, the Office contends that these claims are indefinite for lacking recitation of an *effective amount*. Applicants have amended claims 27, 29, 31, 34, 68, 70, 72, 74, 75, 80, 83 and 85-99 to recite an *effective amount* and respectfully request favorable reconsideration. Regarding claims 109-111, Applicants respectfully believe that the Office may have inadvertently overlooked the existing recitation of an *effective amount*. Similarly, regarding claims 100-108, Applicants respectfully believe that the Office may have inadvertently overlooked the existing recitation of an *inhibitory amount*. As such, Applicants respectfully request favorable reconsideration of claims 100-111.

3) Regarding claims 85-111, the Office contends that these claims are indefinite for their recitation of *the compound of formula (I) as defined in claim 77*. The Office points out that base claim 77 provides no recitation of a *formula (I)*. Applicants thank the Office for recognition of the informality and have amended claim 77 to recite *formula (I)*. As such, Applicants respectfully request favorable reconsideration.

Claim Rejections – 35 U.S.C. §112, first paragraph

Claims 6-9, 25-27, 29, 31, 33, 65-69, 72, 74, 80, 83, 85 and 87-111 were rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. Applicants respectfully request favorable reconsideration for the reasons below.

1) Regarding claims 25, 26, 66 and 67, the Office contends that Applicants' specification lacks enablement for the recitation of *solvate*. Applicants respectfully disagree, but in an effort to expedite prosecution of the present case, Applicants have amended claims 25 and 66 without disclaimer to remove the recitation of *solvate*. Applicants respectfully believe these amendments address the Office's concerns and request favorable reconsideration.

2) Regarding claims 6-9 and 65, the Office contends the specification lacks enablement for a compound of formula (I) where "the phenyl ring of quinazoline is substituted with various reactive groups" and where the Ar is "substituted phenylene with various reactive functional groups". The Office recognizes that the specification is enabled for a compound of formula (I) wherein "the phenyl ring of the quinazoline is unsubstituted or substituted with methoxy unsubstituted", and wherein Ar is "unsubstituted phenylene". In an effort to expedite prosecution of the present case, Applicants have amended the instant claims, without disclaimer, to recite that R¹ and R² along with the adjacent atoms to which they attach *form a phenyl group optionally substituted with methoxy*; and to recite that Ar represents an *unsubstituted phenylene group*. Applicants respectfully believe these amendments address the Office's concerns and request favorable reconsideration.

3) Regarding claims 27, 29, 31, 33, 68, 69, 72, 74, 80, 83, 85 and 87-111, the Office has three specific concerns.

First, the Office contends that "instant claims are reach through claims". Applicants respectfully disagree. Reach through claims are claims that attempt to *reach through* the scope of an invention to cover compounds or methods *outside* of an applicant's discovery. All currently pending claims are clearly directed to Applicants' discovery and scope of invention, e.g., they are all expressly directed to compounds of formula (I) or formula (I)'s agonism of PPAR α and/or PPAR γ . In contrast to the instant claims, a reach through claim might recite:

A compound that treats diabetes by agonizing PPAR.

or,

A method of treating a subject comprising agonizing PPAR.

Both of these claims arguably *reach through* the present invention because they attempt to encompass compounds **other than formula (I)** or methods utilizing compounds other than formula (I). Applicants respectfully submit that no such claims have been presented. Further, Applicants have amended claims 29, 70, and 87 to clarify that they are inclusive of formula (I). As such, Applicants respectfully believe that all pending claims are expressly inclusive of a compound of formula (I) or its discovered interaction with particular receptors. For at least these reasons, Applicants respectfully request favorable reconsideration on this basis for rejection.

Second, the Office maintains its concerns regarding Applicants' use of *preventing* in the instant claims. Applicants respectfully disagree for the reasons previously presented, but in an effort to advance prosecution, Applicants have amended the claims without disclaimer to remove any recitation of *preventing*. As such, Applicants respectfully request favorable reconsideration on this basis for rejection.

Third, the Office expresses concerns regarding the recitation of "additional active ingredients" in combination with the recitation of "preventing". Applicants believe that the amendments discussed above, removing any recitation of *preventing*, address the Office's concerns and respectfully request favorable reconsideration on this basis for rejection.

Applicants respectfully submit that all of the instant claims are sufficiently enabled by the specification as filed.

Claims 27, 31, 68, 72, 80 and 83 are directed to a method of treating diabetes or impaired glucose tolerance. The Examiner has indicated that the treatment of diabetes is enabled by the specification.

Claims 30, 34, 71, 75, 82, 86, and 88-93 are directed to reducing plasma glucose, triglycerides, total cholesterol, LDL, VLDL and free fatty acids in the plasma. The specification clearly describes the reduction of blood glucose triglyceride levels, total cholesterol, LDL, VLDL and free fatty acids following in vivo administration of the claimed compounds to animal models of diabetes and hypercholesterolemia. (*See e.g.*, page 92, line 1 to page 96, line 9.)

Thus, the specification enables one skilled in the art to carry out the claimed method, and reconsideration of this basis for rejection is respectfully requested.

Claims 29, 33, 70, 74, 85 and 87 are directed to a method for the treatment of disorders related to Syndrome X. Chaisson *et al.*, previously discussed and provided, notes that glucose intolerance is part of a clustering of risk factors for cardiovascular disease, obesity, hypertension, high triglyceride levels and low HDL cholesterol, termed Syndrome X. As discussed above, the specification clearly describes the reduction of blood glucose, triglyceride levels, total cholesterol, LDL, VLDL and free fatty acids levels following *in vivo* administration of the claimed compounds to animal models of diabetes and hypercholesterolemia. (See page 92, line 1 to page 96, line 9.) In addition, WO 97/25042, cited in the instant specification, discloses propanoic acid derivatives for the treatment of Syndrome X having PPAR α and/or PPAR γ agonist activity which reduced blood glucose, triglyceride and fatty acid levels following *in vivo* administration to diabetic mice. Thus, the specification enables one skilled in the art to carry out the claimed method, and reconsideration of this basis for rejection is respectfully requested.

Claims 94-99 are directed to a method for the treatment of hyperlipidemia, hypercholesterolemia, hyperglycemia, insulin resistance, psoriasis, obesity, leptin resistance and/or type II diabetes. Applicants submit that the specification enables the treatment of each of the recited diseases or disorders. Hyperlipidemia, hypercholesterolemia, hyperglycemia, insulin resistance and type II diabetes have been discussed above. Regarding obesity and leptin resistance, the specification describes materials showing a link between leptin resistance, obesity, impaired glucose tolerance and diabetes. (See page 5, lines 4-12). Furthermore, as discussed above, the specification clearly describes the reduction of blood glucose, triglyceride levels, total cholesterol, LDL, VLDL and free fatty acids levels following *in vivo* administration of the claimed compounds to animal models of diabetes and hypercholesterolemia. (See page 92, line 1 to page 96, line 9.) These animal models included the db/db mouse, which is obese, hyperglycemic, hyperinsulinemic and insulin resistant, the ob/ob mouse, which is obese, leptin resistant, hyperphagic, hyperglycemic and hyperinsulinemic, and the fa/fa rat, which is obese, leptin resistant, hyperphagic and hyperlipidemic. In addition, Pickavance *et al.*, previously discussed and provided, describes treatment of pre-diabetic Zucker Diabetic Fatty (ZDF) rats, which are obese, leptin resistant and hyperphagic, with a PPAR agonist, which prevented

progression of impaired glucose tolerance to diabetes. Applicants respectfully request favorable reconsideration for at least these reasons.

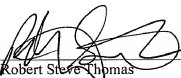
Claims 100-108 are directed to methods of activating PPAR α and/or PPAR γ in a cell comprising administering **a compound of formula (I)**. Claims 109-111 are directed to a method for the treatment of a condition mediated by PPAR α and/or PPAR γ comprising administering **a compound of formula (I)**. Applicants respectfully submit that, as discussed above, these claims are not reach through claims. They are expressly directed to compounds of formula (I) and do not attempt to encompass subject matter outside of the scope of the present invention. Further, these claims are enabled by the *in vitro* data provided at page 90, line 24 to page 91, line 17, and the *in vivo* data provided at page 92, line 1 to page 96, line 9. As such, Applicants respectfully request favorable reconsideration.

Applicants also respectfully believe that the Office inadvertently overlooked the previous cancellation of claim 69 in Applicants' response of 17 November 2006. As such, Applicants believe all rejections directed to claim 69 are moot.

Conclusion

Applicants submit that by this amendment, the case in condition for immediate allowance and such action is respectfully requested. If, however, any issue remains unresolved, Applicants' representative would welcome the opportunity for a telephone interview to expedite allowance and issue.

Respectfully submitted,

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